

IN THE CLAIMS:

1-18 (Cancelled)

19. (Currently amended) A read-only memory system where read-only data is stored in combinatorial logic, said system comprising:

at least one binary logic function device adapted to receive two binary address bits and to generate a plurality of binary values from (i) said two address bits and (ii) a plurality of logic functions;

at least one multiplexer adapted to receive at least one of said plurality of binary values, said at least one multiplexer being adapted to select a subset of said at least one of said plurality of binary values based upon at least one other address bit, said at least one other address bit being separate and distinct from said two address bits;

at least one decoder for decoding said at least one other address bit; and
at least one other stage-two multiplexer, where the output of said at least one multiplexer is provided to said at least one other stage-two multiplexer, the output of said at least one other stage-two multiplexer being said read-only data.

20. (Currently amended) A read-only memory system where read-only data is stored in combinatorial logic, said system comprising:

- at least one binary logic function device adapted to receive two binary address bits and to generate a plurality of binary values from (i) said two address bits and (ii) a plurality of logic functions;
- at least one multiplexer adapted to receive at least one of said plurality of binary values;
- at least one decoder for decoding ~~said at least one other~~ address bit; and
- at least one ~~other stage~~ two multiplexer, where the output of said at least one multiplexer is provided to said at least one ~~other stage~~ two multiplexer, the output of said at least one ~~other stage~~ two multiplexer being said read-only data.